

Diffraction of a plane elastic wave by a gradient transversely isotropic layer

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Abstract

The problem of diffraction of a plane elastic wave by a gradient transversely isotropic layer is considered. Using the method of overdetermined boundary value problem in combination with the Fourier transform method, the system of ordinary differential equations of the second order with boundary conditions of the third type is obtained which is solved by the grid method. Results of calculations obtained using the above-mentioned technique for the case of piecewise linear profiles for the Young modulus of the layer are given. © 2013 Anastasiia Anufrieva and Dmitrii Tumakov.

<http://dx.doi.org/10.1155/2013/262067>
